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LERNER, DAVID, LITTENBERG,  
KRUMHOLZ & MENTLIK  
600 SOUTH AVENUE WEST  
WESTFIELD, NJ 07090

EXAMINER

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/419,164

Applicant(s)

KORI ET AL.

Examiner

James A. Fletcher

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2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 4, 7, 9, 12-13, 19, 22, 25, 27, and 30-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Callway et al. (6,356,704).

**Regarding claims 1 and 19**, Callway et al disclose a signal conversion apparatus and method comprising:

- signal conversion means and method for converting an input signal to a converted signal (Fig 4, item 22 “video digitizer”);
- determination means and method for detecting additional information added to the input signal and for determining whether or not the additional

information indicates a use limitation for the converted signal (Fig 4, item 72 "protection detect ckt"); and

- use limitations means and method for disabling the converted signal when the use limitation is copy prohibition or copy limitation (Col 2, lines 25-31 "The data access parameter may control access to the data as at least one of: copy restrictions, viewing restrictions, and/or use restrictions. The indication is subsequently provided to a computer system such that unauthorized accessing, including unauthorized copying, of the video and/or audio data is prohibited").

**Regarding claims 4 and 22,** Callway et al disclose a signal conversion apparatus and method wherein the input signal is a video signal (Col 2, lines 21-22 "the data may be audio data and/or video data") and the signal conversion means is adapted to convert a signal format (Fig 4, item 22 "video digitizer").

**Regarding claims 7 and 25,** Callaway et al disclose a signal conversion apparatus and method wherein the signal conversion means is adapted to convert the signal format from an analog video signal into a digital video signal (Fig 4, item 22 "video digitizer").

**Regarding claims 9 and 27,** Callway et al disclose a signal conversion apparatus and method wherein the input signal is an audio signal (Col 2, lines 21-22 "the data may be audio data and/or video data").

**Regarding claims 12 and 30,** Callway et al disclose a signal conversion apparatus and method wherein the signal conversion means is adapted to convert an

analog audio signal into a digital audio signal (Col 2, lines 31-35 "With such a method and apparatus, a personal computer [PC] may be coupled to receive audio and/or video data from a data source, such as a DVD player, detect whether the data being sourced is protect5ed, and, if so, ensure that the data is protected based on the data access parameter." The examiner notes that data stored and processed by a PC is inherently digital data, and therefore the presence of an apparatus and method for converting analog data to digital data is understood in an environment where a PC is used to store and process incoming analog audio data.).

**Regarding claims 13 and 31,** Callway et al disclose a signal conversion apparatus and method wherein notification means and step for notifying a user of the use limitation for the converted signal (Col 2, lines 64-66 "The graphics controller generates the indication of protection by monitoring the video data for the embedded protection coding").

**Regarding claims 16 and 34,** Callway et al disclose a signal conversion apparatus and method wherein a plurality of different types of additional pieces of information are added to the input signal, and when the determination means determines that one of the plurality of different types of additional pieces of information indicates copy prohibition or copy limitation, the use limitation means disables the converted signal (Col 3, lines 41-51 (the vertical sync lines may include embedded information that allows close caption to be employed... store information that is referred to as teletext lines...or Intericast lines which allow HTML documents to be embedded... may also include the Macrovision embedded coding" and Col 2, lines 25-

31 "The data access parameter may control access to the data as at least one of: copy restrictions, viewing restrictions, and/or use restrictions. The indication is subsequently provided to a computer system such that unauthorized accessing, including unauthorized copying, of the video and/or audio data is prohibited").

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claims 1, and 19, and further in view of Rhodes (5,280,397).

**Regarding claims 2, 3, 20, and 21,** Callway et al disclose a signal conversion apparatus and method wherein the input signal is a video signal (Col 2, lines 21-22 "the data may be audio data and/or video data") but do not specifically disclose that the conversion converts progressive scanning into interlaced scanning, or converts the number of scanning lines.

Rhodes teaches conversion from high definition TV signals to standard definition signals (Col 5, lines 21-23 "Signal sources for proposed high-definition television are provided..." and Col 6, lines 7-9 "An actual...signal output from test bed is also sent to processing equipment for NTSC compatibility tests"). High definition signals are known

to include formats wherein the scanning is progressive, as well as having a number of scanning lines that is greater than standard definition.

As taught by Rhodes, signal conversion from high definition to standard definition is a well-known and available signal conversion technique. In a system where copy-protected high definition signals are to be shown or stored on standard definition equipment, common sense would dictate that the copy-protection data would be understood and heeded by the storage and/or display equipment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection while converting from high definition to standard definition.

5. Claims 5, 6, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claims 1, 4, 19, and 23 above, and further in view of Rhodes.

**Regarding claims 5, 6, 23, and 24,** Callway et al disclose a signal conversion apparatus and method where the signal conversion means is adapted to perform signal format conversions, but does not specifically disclose the conversion from a high definition signal or a computer processing to a standard definition signal.

Rhodes teaches conversion from high definition TV signals to standard definition signals (Col 5, lines 21-23 "Signal sources for proposed high-definition television are provided..." and Col 6, lines 7-9 "An actual... signal output from test bed is also sent to processing equipment for NTSC compatibility tests").

As taught by Rhodes, signal conversion from high definition to standard definition is a well-known and available signal conversion technique. In a system where copy-

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protected high definition signals are to be shown or stored on standard definition equipment, common sense would dictate that the copy-protection data would be understood and heeded by the storage and/or display equipment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection while converting from high definition to standard definition.

6. Claims 14 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claims 1 and 19 above, and further in view of Ryan et al (6,374,036).

**Regarding claims 14 and 32,** Callway et al disclose a signal conversion apparatus and method wherein additional information is provided to control copy protection, but they do not specifically disclose the use of watermarks as a carrier of such additional information.

Ryan et al teach the use of watermarks to determine copy prohibition or copy limitation (Col 1, lines 15-18 "The present invention relates to copy protection of video material by embedding robust identification codes [e.g., watermarks or fingerprints] in video signals, and use of these identification codes for a 'copy-once' method and apparatus").

As taught by Ryan, watermarks are a well-known and available technique of providing copy protection to image data signals. In a system where the data conversion detected copy protection in the form of a watermark, common sense would dictate that the copy protection data would be detected and heeded by the storage and/or display



equipment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection dictated by a watermark.

7. Claims 17 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claims 1, 16, 19, and 34 above, and further in view of Ryan.

**Regarding claims 17 and 35**, Callway disclose a signal conversion apparatus and method wherein additional information is provided to control copy protection, but they do not specifically disclose the use of watermarks as a carrier of such additional information.

Ryan et al teach the use of watermarks to determine copy prohibition or copy limitation (Col 1, lines 15-18 "The present invention relates to copy protection of video material by embedding robust identification codes [e.g., watermarks or fingerprints] in video signals, and use of these identification codes for a 'copy-once' method and apparatus").

As taught by Ryan, watermarks are a well-known and available technique of providing copy protection to image data signals. In a system where the data conversion detected copy protection in the form of a watermark, common sense would dictate that the copy protection data would be detected and heeded by the storage and/or display equipment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection dictated by a watermark.

8. Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claims 1, 4, 19, and 22.

**Regarding claims 8 and 26**, Callway et al disclose a signal conversion apparatus and method for enforcing copy protection on converted signals, but do not specifically disclose conversion of data compression methods.

The examiner takes official notice that data compression conversions are notoriously well-known and commercially available techniques for modifying compressed data to solve a variety of problems, including bandwidth and storage limitations. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection when converting from one compression method to another.

9. Claims 10-11 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claims 1, 9, 19, and 27 above.

**Regarding claims 10 and 28**, Callway et al disclose a signal conversion apparatus and method for enforcing copy protection on converted audio signals, but do not specifically disclose converting the sampling frequency of an audio signal.

The examiner takes official notice that the sampling frequency of an input signal is notoriously well known to be a design choice, and may be modified to suit the needs of the product or its application. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection when converting the sampling frequency of the incoming audio signal.

**Regarding claims 11 and 29**, Callway et al disclose a signal conversion apparatus and method for enforcing copy protection on converted audio signals, but do not specifically disclose converting a compression method.

The examiner takes official notice that data compression conversions are notoriously well-known and commercially available techniques for modifying compressed data to solve a variety of problems, including bandwidth and storage limitations. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection when converting from one method of compression to another.

**10.** Claims 15 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claim 1 above.

**Regarding claims 15 and 33,** Callway discloses a signal conversion apparatus and method for enforcing copy protection on converted signals, but do not specifically disclose doing so when the input signal is a digital signal.

The examiner takes official notice that digital input signals are notoriously well known and commercially available, and that many of those signals contain additional data indicating copy protection. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection on an incoming digital signal.

**11.** Claims 18 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callway et al as applied to claims 1, 16, 19, and 34 above.

**Regarding claims 18 and 36,** Callway discloses a signal conversion apparatus and method for enforcing copy protection on converted signals, but do not specifically disclose treating an encrypted signal.

The examiner takes official notice that data encryption is a notoriously well-known and commercially available method of protecting data from unauthorized viewing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to enforce copy protection on an incoming encrypted digital signal.

**12.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached at (703) 308-9644.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, DC 20231


**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF  
September 22, 2003

  
VINCENT BOCCIO  
PRIMARY EXAMINER